

1.087.851



# PATENT SPECIFICATION

DRAWINGS ATTACHED

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Date of filing Complete Specification: Feb. 24, 1965.

Application Date: Feb. 25, 1964.

No. 7698/64.

Complete Specification Published: Oct. 18, 1967.

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1.087.851

Index at acceptance:—A4 U23X

Int. Cl.:—A 47 b 89/00

## COMPLETE SPECIFICATION

### Improvements relating to Castors

We, GEO. H. HUGHES LIMITED, a British Company, of Edgmond Avenue, Tyburn, Birmingham 24, in the County of Warwick, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

This invention relates to castors particularly, but not exclusively, for invalid chairs.

In accordance with the present invention a castor comprises a shaft, a swivel member swivellably mounted on a first end of the shaft and rotatably supporting a castor wheel, a pair of bosses axially spaced on the shaft at least one of the bosses being detachably mounted on the shaft, a socketed bracket co-axially receiving the shaft and the bosses so that the latter space the shaft from the socket wall, and a pin radially extending through the socketed bracket and one of the bosses to prevent relative angular movement between the shaft and the bracket.

A typical example of the practical realisation of the invention is particularly described below with reference to the accompanying drawings, in which:—

Figure 1 is a side elevation, partly in section, of a castor complete with wheel; and

Figure 2 is a front elevation, partly in section, of a part of the castor.

Referring to the drawings a castor for an invalid chair comprises a swivel member in the form of a fork 1 provided with an axle 2 spanning the free ends of its limbs 3. A castor wheel 4 is rotatably supported on the axle 2. The head 5 of the fork 1, at which the limbs 3 are conjoined, is bored at 6 and counterbored at 7 at each end of said bore 6 along an axis perpendicular to but offset from the axis of the wheel 4.

The counterbores 7 each house one of a pair of back to back bearing cups 8 co-operating through ball bearings 9 with corresponding cones 10 in the vicinity of one end 11 of

[Price 4s. 6d.]

a shaft 12 extending through the bore 6 and cups 8 and projecting away from the limbs 3 of the fork 1. The cone 10 adjacent said end 11 is screwed onto the shaft 12 and held in position by a lock nut 13 and washer 14, and the other cone 10 seats against a boss 15 on the shaft 12 so that the fork 1 is pivotally secured to the shaft 12 and the shaft 12 is co-axial with the bore 6 in the head 5 of the fork 1. The boss 15 is surrounded by a dirt excluding ring 5a of arcuate cross-section.

The main portion of the shaft 12 projecting away from the head 5 of the fork 1 is plain from the boss 15 to its upper end 16 which is screw-threaded to receive a lock nut 17 and cap 18.

The boss 15 on the shaft 12 is formed with a stepped portion 19 of diameter between those of the main portion of the shoulder 15 and the remainder of the shaft 12 so that the main portion defines a flange. The stepped portion 19 is located on the side of the boss 15 remote from the bearing cups 8 and is drilled radially with respect to the shaft axis for a substantial part of the thickness of the shaft at that point, to receive a pin 20, as will be described.

The castor also comprises a further boss in the form of a flanged bush 21 of external configuration similar to that of the boss 15.

In use the shaft 12 is inserted into a tubular castor mounting bracket 22 of an invalid chair with the lock nut and cap 17 and 18, and the flanged bush 21 removed, and is located with one end of the bracket seated on the flange of the boss 15 and surrounding the stepped portion 19 thereof, and the pin 20 is positioned through an aperture or slot 23 in the bracket 22 so that a first portion is in the drilled hole in the stepped portion 19 of the boss 15, and a second portion of the pin 20 projects from the boss 15 into the slot 23. The flanged bush 21 is then positioned in a similar way to the boss 15 on the end

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16 of the shaft 12. Thus the shaft 12 is positioned co-axially with respect to the mounting bracket 22. The pin 20 serves to prevent relative rotation between the shaft 12 and said 5 bracket 22. Finally the locking nut 17 and cap 18 are screwed and tightened onto the shaft 12. bracket co-axially receiving the shaft and the 15 bosses so that the latter space the shaft from the socket wall, and a pin radially extending through the socketed bracket and one of the bosses to prevent relative angular movement 30 between the shaft and the bracket.

2. A castor assembly substantially as hereinbefore described and illustrated in the accompanying drawings.

WHAT WE CLAIM IS:—

10 1. A castor assembly comprising a shaft, a swivel member swivellably mounted on a first end of the shaft and rotatably supporting a castor wheel, a pair of bosses axially spaced on the shaft at least one of the bosses being detachably mounted on the shaft, a socketed

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Leamington Spa: Printed for Her Majesty's Stationery Office, by the Courier Press.  
—1967. Published by The Patent Office, 25 Southampton Buildings, London, W.C.2,  
from which copies may be obtained.

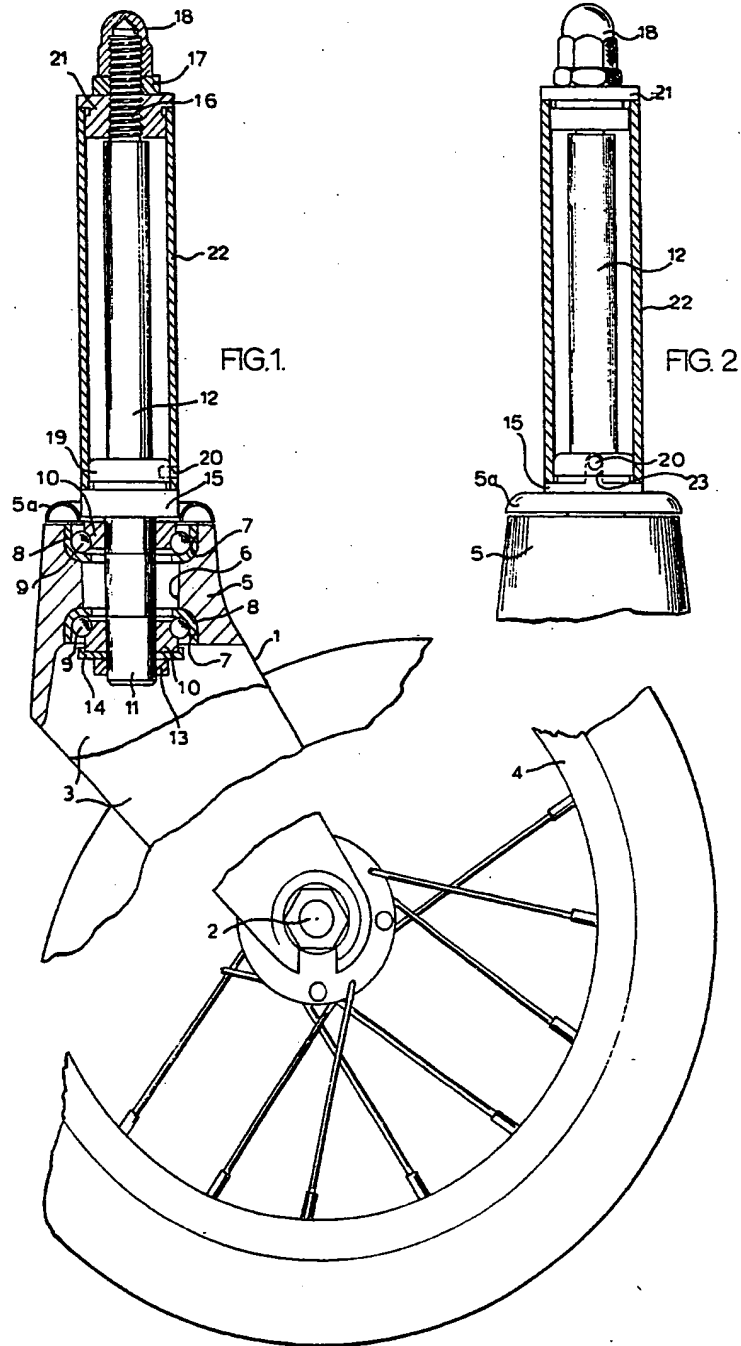
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COMPLETE SPECIFICATION

1 SHEET

*This drawing is a reproduction of  
the Original on a reduced scale*



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